

Guardian Environmental Services,  
Niagra Falls Boulevard Site  
New York  
REMOVAL FUNDED TASK ORDER

Contract #: EP-S2-15-01  
Site ID#: A23Q  
Task Order No. 023 (Proposed)  
Funding Verbally Authorized on May 13, 2016  
Action Memorandum is Pending

## **STATEMENT OF WORK**

### **BACKGROUND:**

In 1978, the U.S. Department of Energy conducted an aerial radiological survey of the Niagara Falls region and found more than 15 properties having elevated levels of radiation above background levels. It is believed that, in the early 1960s, slag from the Union Carbide facility located on 47th Street in Niagara Falls was used as fill on the properties prior to paving. The Union Carbide facility processed ore containing naturally-occurring high levels of uranium and thorium to extract niobium. The slag contained sufficient quantities of uranium and thorium to be classified as a licensable radioactive source material. Union Carbide subsequently obtained a license from the Atomic Energy Commission, now the Nuclear Regulatory Commission, and the State of New York; however, the slag had already been used as fill throughout the Niagara Falls region prior to licensing. Based on the original survey and subsequent investigations, it is believed that the radioactive Union Carbide slag was deposited on the NFB site.

The Niagara Falls Boulevard Site is located in a mixed commercial and residential area of Niagara Falls, New York. The site consists of two parcels, namely 9524 and 9540 Niagara Falls Boulevard. This site encompasses approximately 2.53 acres. Currently, the 9524 Niagara Falls Boulevard property contains a bowling alley and an asphalt parking lot; the 9540 Niagara Falls Boulevard property contains a building supply business and an asphalt parking lot. The properties are bordered to the north by a wooded area; to the east by a church; to the south by Niagara Falls Boulevard, beyond which is a residential area; and to the west by a hotel and residential area.

Analytical results obtained from New York State, USEPA Pre-Remedial Program and USEPA Removal Program assessments indicate that material comprising the earthen layer of the majority of this site property is contaminated with radionuclides significantly higher than at background conditions (i.e., greater than 2x background concentrations). The contamination is present underneath:

- The aforementioned asphalt parking lot.
  - There is minimal shielding provided by the asphalt and there are breaches throughout the parking lot that exhibit even higher readings of gamma radiation and provide a greater chance of airborne material to migrate.
- The surrounding woods.
  - The slag has been deposited well beyond the asphalt parking lot.
  - There are signs of the public spending time in these wooded areas (Bottles, trash, makeshift seating areas, fire pits)
- Sections of the Bowling Alley
  - These sections were constructed after the slag fill was deposited and located on top of the radioactive contamination.
  - The Northern vestibule.

- The walk in refrigerator located on the Southwest side of the building.
- Sections of the Building Supply Business
  - These sections were constructed after the slag fill was deposited and located on top of the radioactive contamination.
  - The additional offices added to the Southwest side of the building.
  - The Northern warehouse of the building.

The purpose of this Task Order is to eliminate the threat of:

2. Direct contact with the radioactive material via inhalation.
3. Off-Site migration of radioactive material via clothing, footwear, vehicle traffic.
4. Exposure to elevated gamma radiation located throughout the site.
5. Exposure of elevated radon levels located inside the Building Supply Business.

#### **TASKS TO BE PERFORMED:**

The contractor shall furnish all necessary personnel, equipment and materials to perform the following:

1. ERRS Project Manager (PM) and/or ERRS Response Manager (RM) to immediately contact the OSC to discuss the SOW, logistics, timelines, and establish an initial work assignment (i.e. daily/weekly work order) including tasking and hours for ERRS personnel. The OSC designated for this Task Order is Eric Daly. Mr. Daly can be reached at 908 420 1707.
2. Provide a Site Specific HASP for the below listed site after the site walk to cover work specified in this task order, and identify any site specific health and safety protections and or training required for workers to execute this statement of work.
3. Provide a Utility mark out for work areas as shown in the site map  
Coordinate with OSC to develop a plan for the mitigation of the radioactive waste existing at the Site. The plan may include one or more of the items listed below:
  - a. **Pilot Study Shielding:** There is a possibility that shielding may be implemented in certain areas instead of removing the contaminated material. If so, radiation test shielding will be conducted in areas designated by the USEPA On-Scene Coordinator (OSC). This may include the outdoor property and possibly interior spaces. Surfaces that may be shielded could be concrete, asphalt or earthen layer. A small forklift will be required for lifting ½” steel plates of a 3’ X 3’ dimension. The weight of ½” plate is 20.5 lbs/ft<sup>2</sup>. Six plates of ½” X 3’ X 3’. Weight per sheet is 184 lbs. A 4” pre cast concrete slab of a 3’ X 3’ minimum dimension is also required for the radiation test shielding. Directions to pick up location to be provided by OSCs. This material will be provided by the government.
  - b. **Above Grade Shielding:** The contractor may have to provide installation of shielding in accordance with a detailed action/work plan. The plan is to be developed after test shielding has been completed and the technical team

reviews are completed. This shielding may be installed in areas of radiation levels designated suitable by the technical team. Shielding design may include ½” – 1” steel plates (multiple panels) and/or 4000 psi concrete. The shielding may also contain a Lead (Pb) layer sealed within the other shielding materials.

- c. **Excavation of asphalt, concrete and portions of the contaminated slag-soil prior to shielding:** This option could potentially entail excavation of asphalt, concrete and soil/aggregate from the parking lot, buildings and wooded areas. Material will be staged properly for eventual disposal. Once designated amount of material is removed, shielding will be installed as per technical team specifications.
- d. **Excavation of asphalt, concrete and all of the contaminated slag-soil without shielding:** This option could potentially entail excavation of asphalt, concrete and soil/aggregate from the parking lot, buildings and wooded areas. Material will be staged properly for eventual disposal. Once designated amount of material is removed, clean fill, concrete and/or asphalt will be installed.
- e. **Off-site disposal of all hazardous substances identified and recovered during the course of the removal action.**
- f. **Off-site disposal of hazardous waste and/or substances will comply with the Off-Site Rule, 40 CFR 300.440.**

- 4. Conduct all operations in accordance with applicable Federal and State safety standards.
- 5. Additional technical direction will be provided by the OSC through daily work orders.

EPA considers some of the planned activities in this SOW to be subject to Construction Wage Rate Requirements (formerly known as the Davis Bacon Act) wages.